

COMPARATIVE ANALYSIS OF RETURNS ON COMMERCIAL PROPERTY INVESTMENT IN AWKA, ANAMBRA STATE BEFORE AND DURING COVID-19 PANDEMIC

Emmanuella Ijeoma Okonkwo*, Esther Ifeanyichukwu Oladejo**

*(Department of Estate Management, Nnamdi Azikiwe University, Awka)

*emmanuellaijeoma6@gmail.com

** (Department of Estate Management, Nnamdi Azikiwe University, Awka)

**estheroladejo2@yahoo.com

Abstract:

Investing in property is a long established method of earning regular income and accumulating assets and one of the main factors one needs to consider is the choice of asset to invest in. Commercial properties are used primarily for business purposes. A return is the money made or lost on an investment over some period of time. The Covid-19 lockdowns and other precautions taken during the Covid-19 pandemic threw the global economy into crisis resulting in so many kinds of financial setbacks including loss of income, default in rents etc. This sets to find out if covid-19 pandemic so far, has really caused commercial property value to drop substantially, remained steady or risen in Awka, Anambra State. The population for this study is Estate Surveying and Valuation firms within practicing in Awka and commercial property occupants who provided the primary data for the study. Secondary data were taken from various journals, seminar papers, past research works, internet, textbooks, published and unpublished materials. Data collected were presented using tables, and analyzed using different descriptive statistical tools. The study revealed that for commercial properties in Awka, AMR is 0.0933 (9.33%), risk is 0.178 (1.78%) and COV is 1.9078 (190.78%) which implies that 190.78% of risk was taken for every unit of return earned. In the test of the hypothesis, the p-value is 0.9847 which is greater than 0.05, revealing that there is no significant difference in the returns on commercial property investments in Awka before and during the Covid-19 pandemic, (2018 to 2023).

Keywords: Commercial property, Returns, Investment, Covid-19 Pandemic.

1.0 INTRODUCTION

Investment in a general sense can be seen as parting with present capital in return for future income (Ogbuefi, 2002). The benefit from investing is receiving a return on such investment. The return may consist of a gain or a loss realized from the sale of a property or an investment, unrealized capital appreciation (or depreciation), or investment income such as dividends, interest, rental income etc., or a combination of capital gain and income. Investors generally expect higher returns from riskier investments. There are four main asset classes that people can invest in with the hope of enjoying appreciation: stocks, bonds, commodities and real estate. Uzoigwe and Emoh (2012) see real estate investment as that made in real assets like building, land, etc. They went on to say that this form of investment is popular with investors seeking capital growth, particularly in times of inflation and that the principal sectors of the market for this class of investment are offices, shops, agricultural properties, factories and warehouses, special and residential properties. In the view of Chen and Anderson (2020), commercial property is that which is used exclusively for business-related purposes or to provide a workspace rather than as a living space, which would instead constitute residential property. Most often,

commercial property is leased to tenants to conduct income-generating activities. This broad category of commercial property can include everything from a single storefront to a huge shopping center. Commercial real estate includes several categories, such as retailers of all kinds, office space, hotels & resorts, strip malls, restaurants, and healthcare facilities. However, a property constructed for human habitation can also be classified as commercial property thus multi-unit rental properties that serve as residences for tenants are classified as commercial activity for the landlord.

The Covid-19 lockdown and other precautions taken during the Covid-19 pandemic threw the global economy into crisis. Because of the effect of Covid-19 pandemic, some people have not been able to meet up with their financial responsibilities which rent payment is one of them. Many are still battling with the payment of their accumulated rent from the year 2020 as at the year 2022; some have placed their properties on distress sales in order to take care of their financial needs. This is the interest of this research work to ascertain the effect of this pandemic on commercial property investment returns in Anambra State.

This work therefore wants to compare the returns on commercial property investments before the covid-19 pandemic and during the covid-19 pandemic period.

2.0 LITERATURE REVIEW

Property investment has always been at the mercy of external forces and especially at the moment. Unknown repercussions, several high street names in financial trouble and changes in tax treatment are all influencing the property market both in terms of residential and commercial property (Howe, 2021). Commercial property, otherwise known as Commercial real estate was defined by Chen and Anderson (2020) as a property that is used exclusively for business-related purposes or to provide a workspace. Commercial property investment can be of a comparable level, such as a single shop or a small hotel or bed & breakfast, but at the other end of the scale, commercial property investment could involve buying an office block, a small retail park or a complex of industrial units. Most often, commercial real estate is leased to tenants to conduct income-generating activities. This broad category of real estate can include everything from a single storefront to a huge shopping center. The Covid-19 pandemic lockdown orders affected commercial real estate sectors differently. During the Covid-19 pandemic, firms protected their employees by the implementation of home offices where possible. This shift to remote work leads to a wide spread assumption that firms will continue to implement and foster home offices to an increasing degree in the future. The Covid-19 pandemic was not entirely without any positive impact on real estate investment as it facilitated digitalization in all real estate markets as a catalyst for the entire economy in general and real estate sector in particular. For example, the pandemic period brought about the efficient use of social media and internet as a medium of transactions and this increased use of digital channels across all real estate sectors and it has increased market transparency as well as market efficiency.

According to Balemi, Fuss and Weigand(2021), a first decisive documentation of the impact of the Covid-19 pandemic on the housing market is the work by D'Lima, Lopez and Pradhan (2020). Based on a difference-in-differences framework, the authors investigate the effects of shutdown and reopening orders by looking at data of one million housing transactions between 1st January 2020 and 20th June 2020 in the USA, considering both states which impose and states which do not impose statewide shutdown measures. The results do not argue in favor of any aggregate price effect, while demonstrating evidence for a significant decrease in transaction volume.

The finding of D'Lima et al. (2020) show a continuous price increase of the Case/Shiller U.S. National House Price Index from January 2018 to October 2020 with almost no reaction to the Covid-19 crisis. In

contrast, the high uncertainty in the market leads to a plunge on the supply side, where existing home sales decreases by more than – 30% between February and June 2020.

Surprisingly, the market recovers quickly and reaches an all-time high in September 2020. In a similar way, the U.S. Housing Market Index of the National Association of Home Builders drops. Besides recent transaction data, this index includes market sentiment for single-family homes and shows a pessimistic decline of –60% followed by rebounding optimism, driving up the index by + 177% to its all-time high.

Mfam and Kalu (2012) carried out a research on the analysis of return and risk in direct residential and commercial real estate investments in Calabar, South Eastern Nigeria. Ex post returns from market and appraisal data were analyzed to obtain the implied risk over the study period of 17 years. The result shows that mean returns at the sectorial levels of residential and commercial real estate are 23% and 23.82% respectively and 11.27% and 10.06% respectively for the associated risk. The result also reveals that there is a significant difference in total risk between the residential and commercial sectors, the total risk in the residential sector being significantly higher than that of the commercial sector was measured. The result reveals a direct positive and significant relationship meaning that as the risk in residential real estate investment increases that of commercial real estate investment also increases relatively. Generally, the research reveals the commercial sector as being comparatively better than the residential sector in terms of risk and return.

Allan, Ervi, Teddy and Desmond (2021) examined the contemporary impact of Covid-19 pandemic on commercial property rent dynamics in the Asia–Pacific region as the first region to be impacted by the public health crisis. They observed that the most significant declines in rent occurred in regions where exposure to the Covid-19 pandemic was more severe, and in the retail property sector, they observed continued declines of over 30%, with little recovery as of the second quarter of 2020. In additional analysis, they examined capital values and it was shown that while capital targeting the retail property sector had been muted, there was some evidence showing capital flows into the residential and industrial sectors. Generally, the study shows that while the effect of the Covid-19 public health crisis was detrimental to commercial real estate, its impact varies significantly across different regions and property sectors.

Oyedeji (2020) in turn studied the impact of Covid-19 on real estate transaction in Lagos, Nigeria. The study assessed real estate transactions in Lagos during Covid-19 pandemic. The specific objectives of the study were: to examine real estate supply, demand and real estate transaction sale and rental value in the study area. Also, the study examined rate of real estate transactions and problems of real estate transactions during the Covid-19 pandemic. Findings from the study revealed that warehouses (industrial properties) are the class of property that is most readily available for occupation and demand. Warehouses have the highest sale and rental value during this period. The study also revealed that real estate transactions were relatively static in comparison to the period before the pandemic and that the most predominant real estate transaction problem in the study area was bank transaction related problem.

There has been research work on the effect of Covid-19 pandemic on the other sectors of the economy other than the real estate sector. Some authors have also done some research works on the overall state of the real estate market before and during Covid-19 pandemic in some countries like the United States

of America among others. For example, in the work of Chen and Anderson (2020) on commercial real estate, they came to a conclusion that the covid-19 pandemic so far, has not really caused real estate value to drop substantially, and property values have remained steady or even have risen. However, little or no research work has been done to comparatively analyze the returns on commercial property before and during Covid-19 pandemic in AwkaAnambra State, Nigeria to find out if covid-19 pandemic so far, has really caused commercial property value to drop substantially, remained steady or risen.

3.0 RESEARCH METHODOLOGY

The data for this study were sourced from primary and secondary sources. The primary data include personal interactions with commercial property occupants and personal observations, rental and capital values gotten from Registered Estate Surveying and Valuation firms in Awka which were collected through a well structured questionnaires. The secondary data were sourced from various journals, seminar papers, past research works, internet, textbooks, published and unpublished materials. Fifty-seven (57) Letting and sales transactions on commercial properties in different parts of Awka, from 2018 – 2023 were gotten from three (3) Registered Estate Surveying and Valuation firms in Awka. Data collected was analyzed using descriptive statistical tools. Annual returns on the investment were determined by calculating the total returns for each period and these returns were analyzed using Arithmetic Mean Return (AMR), Standard Deviation (SD) and Co-efficient of Variance (COV). The total returns from the commercial properties (Shops, Office Space, and Warehouses) are calculated for the purpose of comparing their performance for the period before and during Covid-19 pandemic (2018 to 2023).

Total return is calculated as follows $TR = \frac{(CV_t - CV_{t-1}) + NI_t}{CV_{t-1}}$

where

TR = Total Return

CV_t = Capital value at the end of period t

CV_{t-1} = Capital value at the end of period t – 1

NI_t = Net income received during period t

4.0 DATA PRESENTATION AND DISCUSSION

In this study, two-sample t-test was used to determine if there is a significant difference in returns from commercial property investments in Awka before and during the Covid-19 pandemic.

H_0 : There is no significant difference in returns from commercial properties.

H_1 : There is a significant difference in returns from commercial properties.

Decision Rule: Reject H_0 if the p-value is less than 0.05 otherwise, fail to reject.

Table 1

Average rental values on commercial property investments in Awka before and during covid-19 pandemic (2018 – 2023)

Year	Shop	Office space	Warehouse	Sum Total
2018	112,250	1 5 1 , 2 5 0	4 5 0 , 0 0 0	7 1 3 , 5 0 0
2019	113,500	1 5 2 , 0 0 0	4 5 2 , 5 0 0	7 1 8 , 0 0 0
2020	115,000	1 5 5 , 0 0 0	4 5 0 , 0 0 0	7 2 0 , 0 0 0
2021	150,000	2 4 7 , 5 0 0	6 5 0 , 0 0 0	1,047,500
2022	180,000	2 5 0 , 0 0 0	6 5 5 , 0 0 0	1,085,000
2023	200,000	2 5 4 , 2 5 0	6 7 5 , 0 0 0	1,129,250

Table 1 shows the average rental values on commercial properties for the period of 2018 to 2023. Real estate return is measured in terms of total return (TR_t) which comprises of net income received (NI_t) and capital value (CV_t). In this study, the total returns for the commercial properties (Shops, Office Space, and Warehouses) are calculated for the purpose of comparing their performance for the period of 2018 to 2023.

Table 2

Total return on commercial property investment in Awka

Year	Shop	Office space	Warehouse	Sum Total
2018	0.0205	0 . 0 3 9 5	0 . 0 4 6 5	0 . 0 1 9 3
2019	0.0114	0 . 0 0 5 0	0 . 0 0 5 6	0 . 0 0 6 3
2020	0.0132	0 . 0 1 9 7	0 . 0 3 8 7	0 . 0 0 2 3
2021	0.3043	0 . 5 9 6 8	0 . 3 8 3 0	0 . 4 5 4 5
2022	0.2000	0 . 0 1 0 1	0 . 0 0 7 7	0 . 0 3 5 8
2023	0.1111	0 . 0 1 7 0	0 . 0 3 0 5	0 . 0 4 0 8

Table 2 shows the total return on commercial properties (Shops, Office Space, and Warehouses) are calculated for the purpose of comparing their performance for the period of 2018 to 2023.

Comparing the returns on commercial property investments in Awka before and during covid-19 pandemic (2018 – 2023).

In order to effectively measure and compare the returns on commercial property investments in Awka before and during Covid-19 pandemic (2018 – 2023), the risk or volatility of commercial property investment was measured using standard deviation. It is a summary of how much the value deviate from their steady state which is given as:

$$S = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{N}}$$

Where:

S stands for standard deviation

x_i is the total return

\bar{x} is the mean of total return

N is the number years observed

Table 3

Summary of performance of commercial property investments from 2018 – 2023.

Properties	mean	Standard deviation	Coefficient of Variation
Shop	0.1101	0 . 1 2 1	1 . 0 9 9
Office space	0.1147	0 . 2 3 6	2 . 0 5 7 5
Warehouse	0.0853	0 . 1 4 7	1 . 7 2 3 3
Sum Total	0.0933	0 . 1 7 8	1 . 9 0 7 8

Table 3 shows the summary of performance of commercial property investments from 2018 – 2023.

Table 4

Annual Performance of Commercial Properties.

Year	Commercial Properties				
2018	0	.	0	1	9 3
2019	0	.	0	0	6 3
2020	0	.	0	0	2 3
2021	0	.	4	5	4 5

2022	0	.	0	3	5	8
2023	0	.	0	4	0	8

Table 4 displays the total return on commercial properties for the various years of the study which is used to compare the Performance of Commercial Properties from 2018 to 2023.

Table 5

Summary of performance of commercial property investments from 2018 - 2023

Performance Measures	Commercial Properties
Arithmetic Mean Return	0 . 0 9 3 3
Standard Deviation	0 . 1 7 8
Coefficient of Variation	1 . 9 0 7 8

Table 5 shows that for commercial properties in Awka, AMR is 0.0933 (9.33%), risk is 0.178 (1.78%) and COV is 1.9078 (190.78%). This implies that 190.78% of risk was taken for every unit of return earned.

Test of Hypothesis

In this study, two-sample t-test was used to determine if there is a significant difference in returns from commercial property investments in Awka before and during the Covid-19 pandemic.

The following hypothesis is tested.

H₀: There is no significant difference in returns from commercial properties.

H₁: There is a significant difference in returns from commercial properties.

Decision Rule: Reject H₀ if the p-value is less than 0.05 otherwise, fail to reject.

Performance Measures	Commercial Properties
Arithmetic Mean Return	0 . 0 9 3 3
Standard Deviation	0 . 1 7 8
n	6

The test statistic is given as:

$$t = \frac{\mu_1 - \mu_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_1}}} = \frac{0.095 - 0.0933}{\sqrt{\frac{0.105^2}{6} + \frac{0.178^2}{6}}} = \frac{0.0017}{\sqrt{0.0018375 + 0.0052807}} = \frac{0.0017}{0.08437} = 0.0201$$

The p-value for this test is 0.9847. This p-value was calculated using Omni calculator.

Since the p-value is greater than 0.05, H_0 is not rejected and therefore, it can be concluded that there is no significant difference in returns from commercial properties from 2018 to 2023.

5.1 FINDINGS

The study revealed from the analysis presented in Table 5 that for commercial properties in Awka, AMR is 0.0933 (9.33%), risk is 0.178 (1.78%) and COV is 1.9078 (190.78%). This implies that 190.78% of risk was taken for every unit of return earned. In the test of the hypothesis, the p-value is 0.9847 which is greater than 0.05, revealing that there is no significant difference in the returns on commercial property investments in Awka before and during the Covid-19 pandemic, (2018 to 2023).

5.2 CONCLUSION

Covid-19 pandemic was mostly felt during the lockdown because it brought about a lot of economic challenges which slowed down economic activities in every aspect of the economy and real estate investment returns was affected as a lot of people could not meet up with their rent payments, banks were closed and real estate transactions which required a huge sum became very difficult, demand and supply of commercial properties also decreased. But as the lockdown orders ended, real estate transactions went back to normal; and with the influx of people in Awka, the demand for commercial properties increased. Property appreciation and rent revisions took place thereby increasing the returns on these properties. From the analysis of this study, it is pertinent to conclude that there is no significant difference in returns from commercial properties before and during covid-19 pandemic (2018 to 2023).

5.3 RECOMMENDATIONS

Property owners are advised to give their properties to professional Estate Surveyors and Valuers who by their course of study and experiences, acquired adequate training on property management so that in the events like Covid-19 pandemic, these professionals can put in all the knowledge that they have acquired over the years to use in order to assist the property owners to achieve a positive return.

Property Managers are encouraged to get acquainted with various computer Applications that help in effective and stress-free property management. Most of the developed countries of the world use property management software which makes it easy to manage properties even from the comfort of their homes and these software can be applied in Nigeria, it will be very easier and faster to collect rent, streamline maintenance request and tenant communications, simplify the screening and application process, provide accounting tools for property management among others. Examples of these property management software developed for different property management companies are DoorLoop, Avail, Landlordy, SimplifyEM, Rentec Direct etc.

REFERENCES

- Adam, H. and Gordon, S. (2021). *Return on investment*. Retrieved from <http://www.investopedia.com/terms/r/return.asp> on July 3, 2021
- Allan, R., Ervi L., Teddy Lu. and Desmond T. (2021). *The COVID-19 pandemic and commercial property rent dynamics*. *Journal of Risk and Financial Management* 14: 360. Retrieved from <https://doi.org/10.3390/jrfm14080360> on October 6 2021

- Balemi, N., Fuss, R. and Weigand, A.(2021). *Covid-19's impact on real estate market: Review and outlook*. Journal of Financial and Portfolio Management. Retrieved from <https://doi.org/10.1007/511408-021-00384-6> on August 25, 2021
- Bankrate (2021).*Commercial property*.Retrieved from <http://www.google.com/amp/s/www.bankrate.com/glossary/c/commercial-property/amp/> on August 4, 2021
- Berry, J. (2020). *Covid-19 implications for commercial real estate - preparing for the next normal*. Retrieved from <http://www.2.deloitte.com/us/en/insights/economy/covid-19-implication-for-commercial-real-estate-cre.html> on August 24, 2021
- Chen, J. (2020a). *What is investment real estate?*. Retrieved from <http://investopedia.com/terms/c/commercial-real-estate.asp> on August 4, 2021
- Chen, J. and Anderson, S. (2020).*Commercial real estate*.Retrieved from <http://www.investopedia.com> on June 26, 2021
- Chen, J. and Julius, M. (2021).*Commercial property*. Retrieved from <http://www.investopedia.com/terms/c/commercial-Property.asp> on August 4, 2021
- Delacy, M. (2019).*Factors affecting your return*. Retrieved from <http://www.commercialrealestate.com.au/adv-factors-affecting-your-return-819413> on July 3, 2021
- De Toro, P., Nocca, F. and Buglio , E. (2021). *Real estate market responses to the covid-19 crisis: which prospects for the metropolitan area of Naples (Italy)*. Journal of urban science. Retrieved from <https://doi.org/10.3390/urbansci/5010023> on September 14, 2021
- D'Lima, W., Lopez, L., Pradhan, A. (2020).*Covid-19 and housing market effects— Evidence from U.S. shutdown orders*. Working paper, Old Dominion University
- Howe, J.(2021). *Commercial v. residential property investment. What's the difference*.Retrieved from <http://www.uown.co/the-hub/commercial-v-residential-property-investment-whats-the-difference> on June 26, 2021
- Jason, F. and Julius, M. (2021).*What is return on investment (ROI)?* Retrieved from <http://www.investopedia.com/terms/r/returnoninvestment.asp> on August 3, 2021
- Kennedy, K.E. (2019).*Commercial real estate value factors*. Retrieved from <http://www.nasinvestmentsolutions.com/article/commercial-real-estate-value-factor> on August 6, 2021

- Mfam, C. E. and Kalu, I. U (2012). *Analysis of return and risk in direct residential and commercial real estate investments in calabar, South East Nigeria*. Journal of science, Engineering and Technology 1(i) pg 128-133.
- Mortgages co.nz (2021). *A beginner's guide to Commercial Property investment*. Retrieved from <http://mortgages.co.nz/a-beginners-guide-to-commercial-property-investment/> on August 6, 2021
- Ogbuefi, J.U. (2002). *Aspects of feasibility and viability studies*. Enugu: Institute for Development Studies, University of Nigeria press.
- Okafor, J. I. (2021). *Assessment of neighbourhood characteristics in the determination of rental value of residential properties in Awka*. A Published MSc Thesis, Department of Estate Management, NnamdiAzikiwe University, Awka.
- Oyedeji, J. O. (2020). *The impact of covid-19 on real estate transaction in Lagos, Nigeria*. International Journal of Real Estate Studies. 14.51 pg 107-112. Retrieved from <http://www.utm.m/interest-ISSN:2231-7643> on August 25, 2021
- Pike, J. (2020). *The future of sustainable real estate investments in a post covid-19 world*. J.Eur. Real Estate Res. 13(3), 455-460
- Proshare (2020). *Covid-19 and the real estate market in Nigeria*. Retrieved from <http://www.proshareng.com/news/PROPERTY%20&20REAL%20ESTATE/COVID-19-and-the-Real-Estate-Market-in-Nigeria/52383> on August 5, 2021
- Reonomy (2019). *The 8 types of commercial real estate*. Retrieved from <http://www.reonomy.com/blog/post/types-of-real-estate> on August 4, 2021
- Sharestates.com (2019). *Residential property*. Retrieved from <http://sharestates.com/glossary/residential-property-investment-explained-awzg3/> on August 10, 2021
- Simeonova, V. (2018). *Property classes: Defining CRE from class A to C*. Retrieved from <http://www.reonomy.com/blog/post/property-class-how-to-identity-and-search> on August 4, 2021
- Tostevini, P. and Chick, S. (2020). *The impact of covid-19 on real estate*. Retrieved from <http://www.savills.com/impacts/market-trends/the-impact-of-covid-19-on-real-estate.html> on August 24, 2021
- Trudeau, M. (2021). *Commercial property investment explained - which?* Retrieved from <http://www.which.co.uk/money/investing/how-investing-works/asset-classes-explained/commercial-property-investment-explained-awzg31j6bwpz-which> on August 5, 2021
- Ugonabo, C. U. (2019). *An appraisal of prohibition of fraudulent practices on land and property law of Anambra State, Nigeria*. A Published PhD Dissertation, Department of Estate Management, NnamdiAzikiwe University, Awka.

University of Nottingham (2020).*The economy after covid-19*. Retrieved from <http://www.nottingham.ac.uk/vision-economy-after-covid-19> on July 3, 2021

Uzoigwe, C.C. and Emoh, F.I. (2012).*Elements of real estate management*. Lagos: Chilar Ventures Limited.